Cold Weather Injury Prevention

Terminal Learning Objective

- As a Soldier participating in cold weather classes, you will gain knowledge on how to protect yourself, and your fellow soldiers, from cold weather injuries IAW AR ..1-301.....

Human Metabolic Rates

- BTU - British Thermal Unit
- Resting - 350 BTU’s Per hour
- Walking - 900
- Walking uphill - 1200
- Long race - 5000

Cold Injury Factors

- **Defensive Position - Static**
- **Age <17 or >40**
- **Fatigue level**
- **Training and experience**
- **Nutrition, activity, drugs and medication, especially alcohol.**

Injuries

- Dehydration
- Trenchfoot
- Frostbite
- Hypothermia

Dehydration

- *To lose or be deprived of water or the elements of water.
- *As prevalent in cold regions as in hot, dry areas.
- *Difficulty in realizing dehydration in cold weather with heavy absorbent clothing.

Trenchfoot

- *Thermal injury sustained as a result of exposure to cold, short of freezing, in a damp or wet environment.
- *Usually occurs between 32 and 50 degrees Fahrenheit.
- *Awareness and hygiene are best preventive measures.

Frostbite

- *Freezing of a body part by exposure to temperatures below freezing.
- *Strong and sustained winds will greatly increase the probability of injury .
- *It is easier to prevent than to treat.
- *Difficult to detect and realize the oncoming symptoms.

Hypothermia

- *Gradual or rapid cooling of the body core temperature.
- *Hypothermic damage to cells may start at
- 95 degrees F.
- *Early stage symptoms provide no negative abnormalities--feeling of well-being, confidence.

Self Protection

- Extremities, digits
- The human body does not dissipate heat in a uniform fashion
- Neck and head - No blood control provided. Hair provides covering.

Protection Cont..

- Keep warm and dry.
- Keep clothing clean.
- Cover exposed skin.
- Recognize signs and symptoms of cold injuries.

Keeping Warm

- Cold Weather Clothing mechanics - uses a trapped layer of air as insulation.
- Layer clothing.
- Use what's issued.
- Wool, Polypro, Down Fibers, Fiber fill.

Cold-Injury Prevention Checklist

- 1. Is safety included in planning?
- 2. Are leaders trained in cold-injury prevention, to include carbon monoxide?
- 3. Are soldiers trained in cold weather operations?
- 4. Are current weather conditions monitored?
- 5. Do soldiers use the buddy system?

Checklist Continued

- 6. Is suitable cold weather gear available, serviceable, and utilized?
- 7. Is proper hygiene practiced?
- 8. Are soldiers not allowed to wear wet clothing unnecessarily?
- 9. Do soldiers change socks regularly?

Checklist Cont..

- 10. Are personnel with previous cold weather injuries monitored closely?
- 11. Are soldiers trained to recognize early warning signs, and perform first-aid?
- 12. Are soldiers aware that alcohol consumption increases the risk of cold injury?

The End

Any Questions?